InstaVine

Team # 4
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Introduction

- The Instagram app went viral soon after its launch.
 It became so popular that Facebook decided to take over it.
- The motivation for this project is to take the features of Instagram one step closer and create a real-time video Instagram.
- Recreate some of the cool Image processing filters that we studied in EE569 and apply it on real time videos.

Hardware and Setup

Video Quality – Speed – Internal Memory trade off.

We chose DM6437 as our Video Processing Board as it gives;

- 720x480i I-O Video resolution (Better Quality!)
- Can connect to external displays (Helps in demo).

The main drawback of 6416: Can only operated with the on board LCD which is too small to give a good demo.

The main drawback of 6437 is smaller internal memory (256kB) which means we need to;

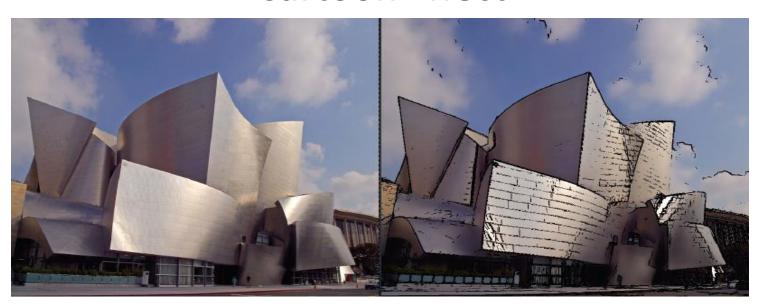
- Cache Input video frames efficiently.
- Optimize the video processing code.

Different combination of the DIP Switches on the board will select various filters.

Edge Detection



Cartoon Effect



Oil Painting Effect



Vignette Effect



Comic Book Effect



White Balance Correction



EE 586L – Advanced DSP Design Lab

Thank You

Questions?